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Chemical constituents of the soft corals Sinularia vanderlandi and Sinularia gravis from the coast of Madagascar

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Abstract

© 2016 The Royal Society of Chemistry. The crude extracts of the Madagascan soft corals Sinularia vanderlandi and Sinularia gravis (Alcyoniidae) showed activity against Plasmodium falciparum which led us to study their chemical constituents. The new cadinane-type sesquiterpenoid vanderlandin (1) has been obtained from S. vanderlandi along with 24-methylenecholesterol (2). Four new compounds, the spatane-type diterpenoid gravilin (3), the monoalkylmonoacylglycerol 4, the dihomoditerpenoid ketone 5, and isodecaryiol (9), along with the three known compounds (+)-(S)-geranyllinalool (6), (-)-(R)-nephthenol (7), and 11,12-epoxysarcophytol A (8) have been isolated from the methanol extract of S. gravis. The structures were elucidated based on extensive spectroscopic methods, in particular various 2D NMR techniques. The structure of isodecaryiol (9) including its absolute configuration could be confirmed by X-ray diffraction.

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